

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PN0369-PCT	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, Item 5 below.	
International application No. PCT/NO2004/000286	International filing date (day/month/year) 28/09/2004	(Earliest) Priority Date (day/month/year) 29/09/2003
Applicant AMERSHAM HEALTH AS		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 8 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒

the text is approved as submitted by the applicant.

☐

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐

the text is approved as submitted by the applicant.

☒

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐

as suggested by the applicant.

☐

as selected by this Authority, because the applicant failed to suggest a figure.

☐

as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NO2004/000286

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The invention provides contrast agents for optical imaging of endometriosis in patients. The contrast agent may be used in diagnosis of endometriosis, for follow-up of progress in disease development, and for follow-up of treatment of endometriosis. Further, the invention provides methods for optical imaging of endometriosis.

The contrast agent has affinity for an abnormally expressed target associated with endometriosis. By abnormally expressed, is meant that the target is either overexpressed or downregulated.

Endometriotic tissue containing a downregulated target may be identified by a low amount of bound contrast agent compared to normal tissue. In this situation, the amount of contrast agent should be less than 50% of that in normal tissue, preferably less than 10%.

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International Application No

PCT/NO2004/000286

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K49/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, EMBASE, CHEM ABS Data, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MALIK E ET AL: "Fluorescence diagnosis of endometriosis using 5-aminolevulinic acid" SURGICAL ENDOSCOPY, vol. 14, no. 5, 2000, pages 452-455, XP002326510 ISSN: 0930-2794 abstract page 452, right-hand column page 454; tables 1,2 page 455, right-hand column, last paragraph	1,2,8-11
X	WO 01/23005 A (SCHERING AKTIENGESELLSCHAFT; SCHIRNER, MICHAEL; LICHA, KAI; DINKELBORG) 5 April 2001 (2001-04-05) page 12, line 18 - line 26 claim 14	1,3-12



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

28 April 2005

Date of mailing of the international search report

10/05/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	ZHOU, LANLAN ET AL: "NIR imaging the delivery of cathepsin B probe to breast tumors" PROCEEDINGS OF SPIE-THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING , 4955(OPTICAL TOMOGRAPHY AND SPECTROSCOPY OF TISSUE V), 505-512 CODEN: PSISDG; ISSN: 0277-786X, 2003, XP002326513 abstract figures 1,3-6; table 2	1-12
O,Y	& OPTICAL TOMOGRAPHY AND SPECTROSCOPY OF TISSUE V, 26 January 2003 (2003-01-26), - 29 January 2003 (2003-01-29) SAN JOSE, CA, USA	1-12
P,Y	----- KE, SHI ET AL: "Near-Infrared Optical Imaging of Epidermal Growth Factor Receptor in Breast Cancer Xenografts" CANCER RESEARCH , 63(22), 7870-7875 CODEN: CNREA8; ISSN: 0008-5472, 2003, XP002326514 abstract	1-12
P,Y	----- CITRIN, DEBORAH ET AL: "In vivo tumor imaging using a near-infrared-labeled endostatin molecule" INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY, BIOLOGY, PHYSICS , 58(2), 536-541 CODEN: IOBPD3; ISSN: 0360-3016, 2004, XP002326515 abstract page 538, paragraph RESULTS figures 1,2	1-12
O,Y	& ICTR 2003, 2ND INTERNATIONAL CONFERENCE ON TRANSLATIONAL RESEARCH AND PRECLINICAL STRATEGIES IN RADIATION ONCOLOGY, 16 March 2003 (2003-03-16), - 19 March 2003 (2003-03-19) LUGANO, CH	1-12
P,Y	----- CITRIN, DEBORAH ET AL: "In vivo tumor imaging in mice with near-infrared labeled endostatin" MOLECULAR CANCER THERAPEUTICS , 3(4), 481-488 CODEN: MCTOCF; ISSN: 1535-7163, 2004, XP002326516 abstract	1-12
X	----- MOON WOO KYUNG ET AL: "Enhanced tumor detection using a folate receptor-targeted near-infrared fluorochrome conjugate." BIOCONJUGATE CHEMISTRY, vol. 14, no. 3, 1 May 2003 (2003-05-01), pages 539-545, XP002326517 ISSN: 1043-1802 figure 1	1-12
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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>MALIK E ET AL: "Angiogenic activity of fluorescent peritoneal fluid in patients with endometriosis"</p> <p>GEBURTSHILFE UND FRAUENHEILKUNDE, vol. 59, no. 12, December 1999 (1999-12), pages 622-625, XP008045889</p> <p>ISSN: 0016-5751</p> <p>abstract</p>	1,2
Y	<p>-----</p> <p>GARCIA-VELASCO JUAN A ET AL:</p> <p>"Interleukin-8 stimulates the adhesion of endometrial stromal cells to fibronectin"</p> <p>FERTILITY AND STERILITY, vol. 72, no. 2, August 1999 (1999-08), pages 336-340, XP002326518</p> <p>ISSN: 0015-0282</p> <p>abstract</p> <p>page 337, right-hand column</p>	1-12
T	<p>-----</p> <p>CHEN WEI-TSUNG ET AL: "Arthritis imaging using a near-infrared fluorescence folate-targeted probe."</p> <p>ARTHRITIS RESEARCH & THERAPY. 2005, vol. 7, no. 2, 2005, pages R310-R317, XP008045879</p> <p>ISSN: 1478-6362</p> <p>the whole document</p>	1-12
Y	<p>-----</p> <p>KATS ROUSLAN ET AL: "Macrophage migration inhibitory factor is markedly expressed in active and early-stage endometriotic lesions."</p> <p>THE JOURNAL OF CLINICAL ENDOCRINOLOGY AND METABOLISM. FEB 2002, vol. 87, no. 2, February 2002 (2002-02), pages 883-889, XP002326519</p> <p>ISSN: 0021-972X</p> <p>abstract</p> <p>-----</p>	1-12

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/N02004/000286

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0123005	A	05-04-2001	DE 19947559 A1	19-04-2001
			AU 779026 B2	06-01-2005
			AU 6702600 A	30-04-2001
			BG 106528 A	29-12-2002
			BR 0014192 A	21-05-2002
			CA 2385593 A1	05-04-2001
			CN 1376074 A	23-10-2002
			CZ 20020991 A3	12-06-2002
			EE 200200152 A	15-04-2003
			WO 0123005 A1	05-04-2001
			EP 1214099 A1	19-06-2002
			HU 0202625 A2	28-12-2002
			JP 2003510294 T	18-03-2003
			MX PA02002639 A	30-07-2002
			NO 20021441 A	15-05-2002
			NZ 517944 A	25-06-2004
			PL 354027 A1	15-12-2003
			SK 3972002 A3	10-09-2002
			ZA 200203225 A	23-07-2003
US 2003162234	A1	28-08-2003	US 2004136910 A1	15-07-2004
WO 9302192	A	04-02-1993	CA 2113206 A1	04-02-1993
			EP 0594749 A1	04-05-1994
			JP 6509116 T	13-10-1994
			WO 9302192 A1	04-02-1993
WO 03079015	A	25-09-2003	AU 2003225763 A1	29-09-2003
			EP 1485716 A1	15-12-2004
			WO 03079015 A1	25-09-2003
WO 2005012901	A	10-02-2005	WO 2005012901 A2	10-02-2005
WO 2005030266	A	07-04-2005	WO 2005030266 A2	07-04-2005
US 2004053823	A1	18-03-2004	NONE	